

STAT+

Trends, clinical trials, and a look ahead to

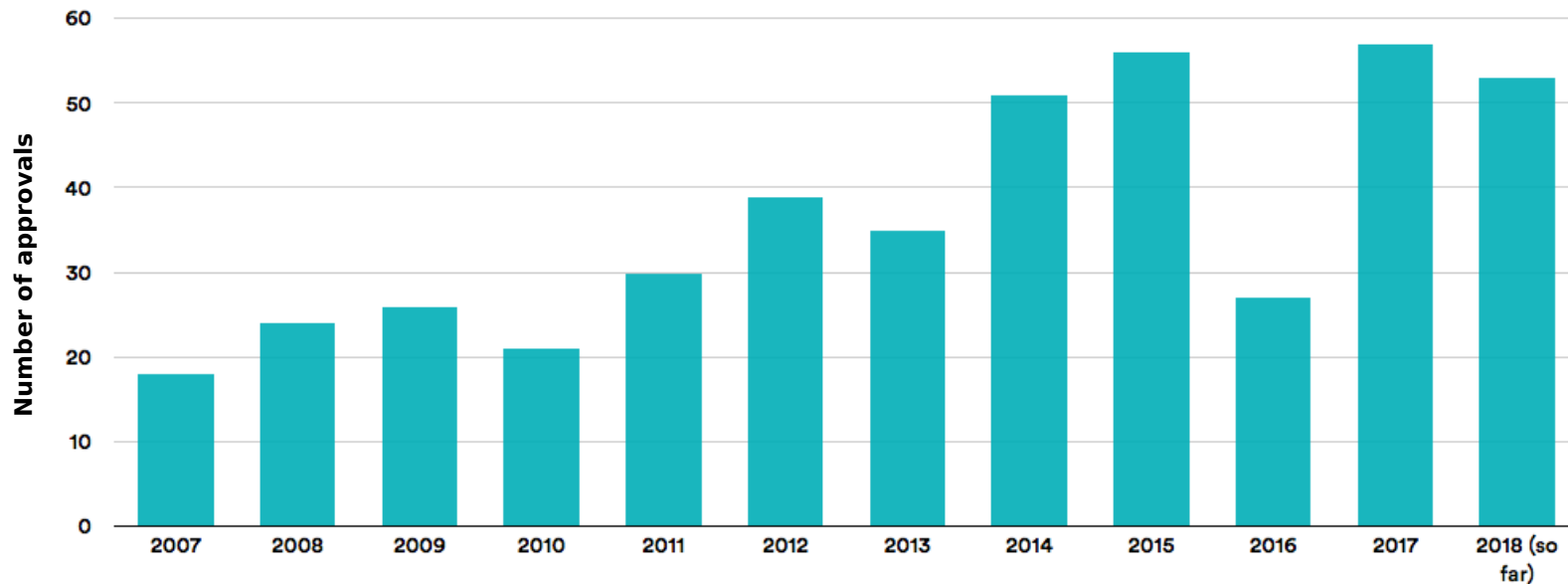
With STAT's Adam Feuerstein, Rebecca Robbins, and Damian Garde
2019

UNDERWRITTEN BY
BRUNSWICK

The year that was

The year in drug approvals

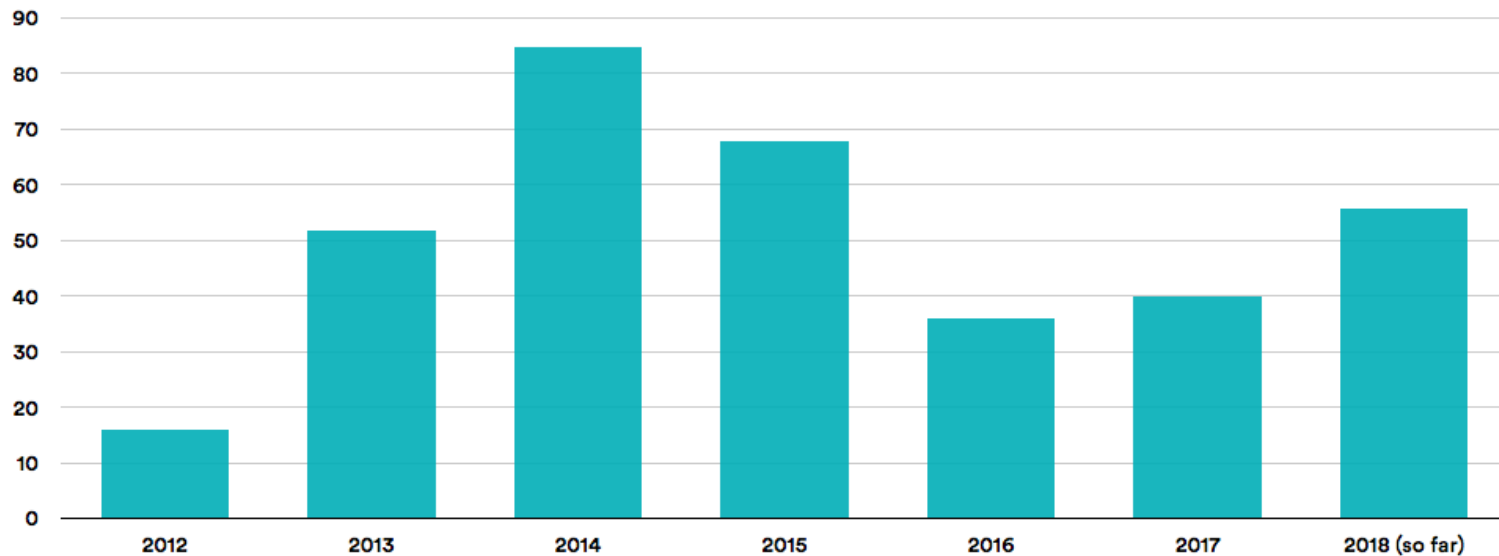
Novel FDA drug approvals by year



Source: Evaluatepharma

The year in IPOs

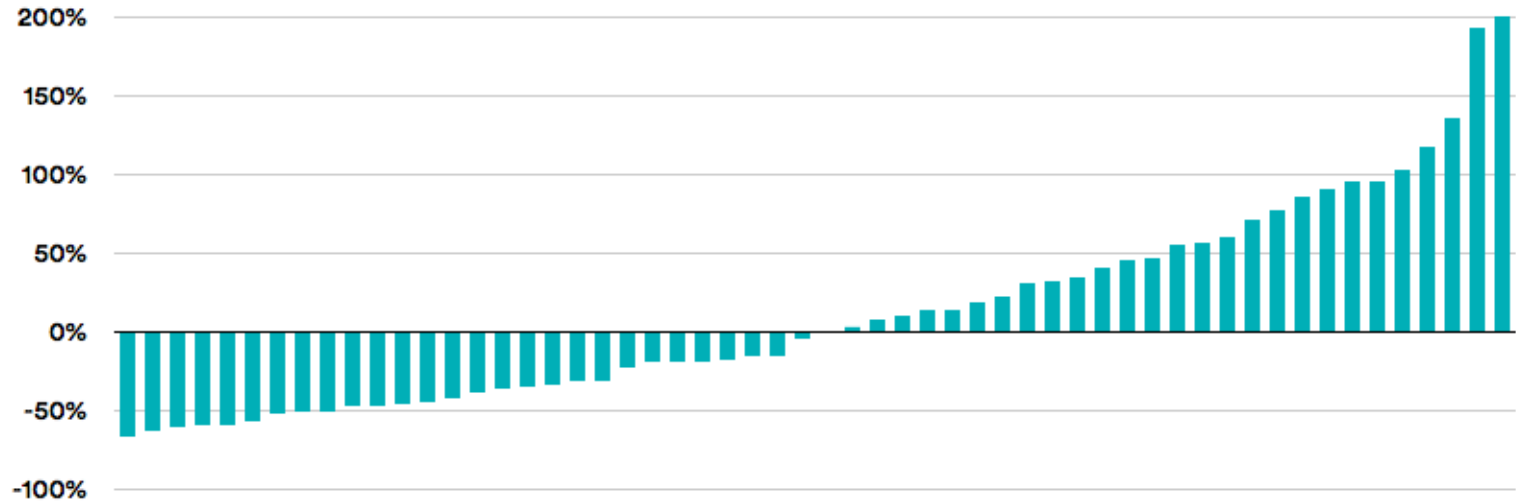
Biotech IPOs by year



Source: Nasdaq

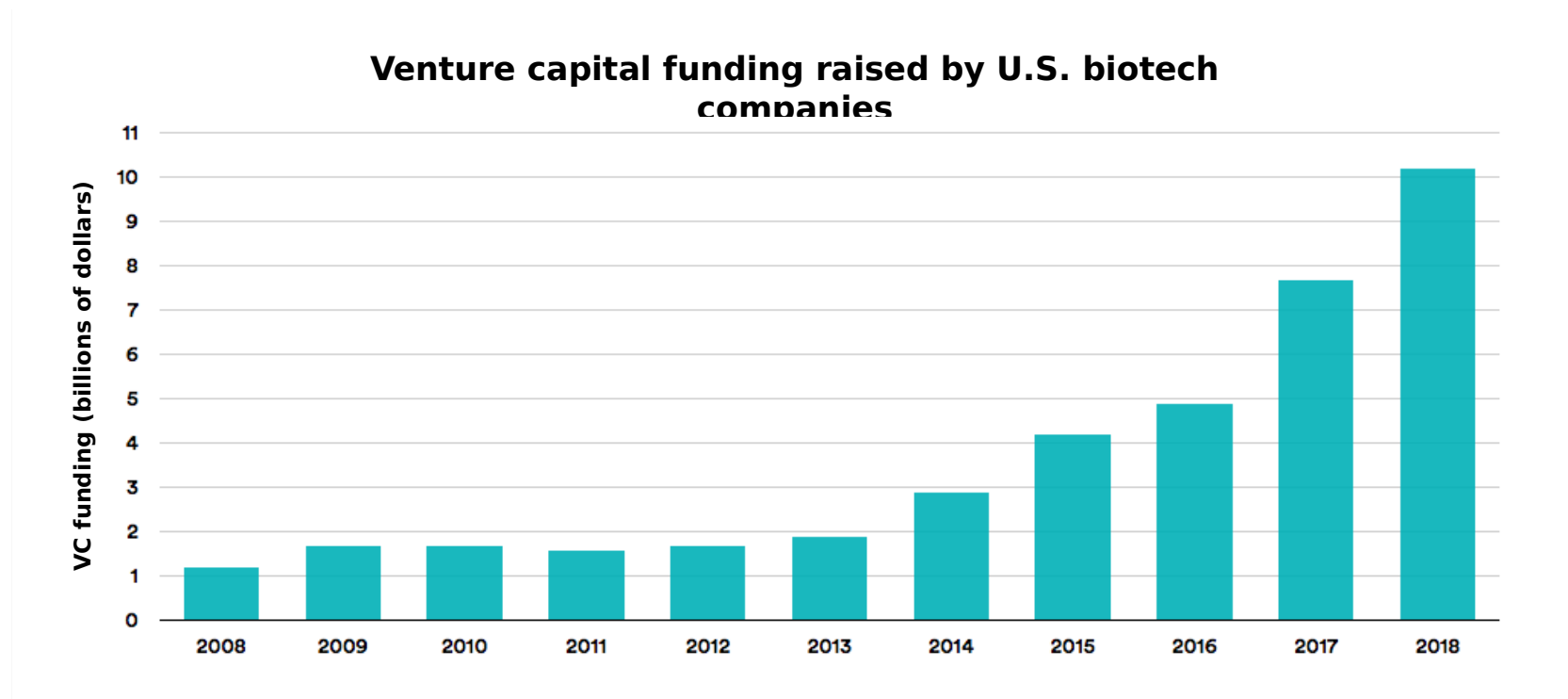
How 2018's IPOs have fared

IPO returns for the class of 2018



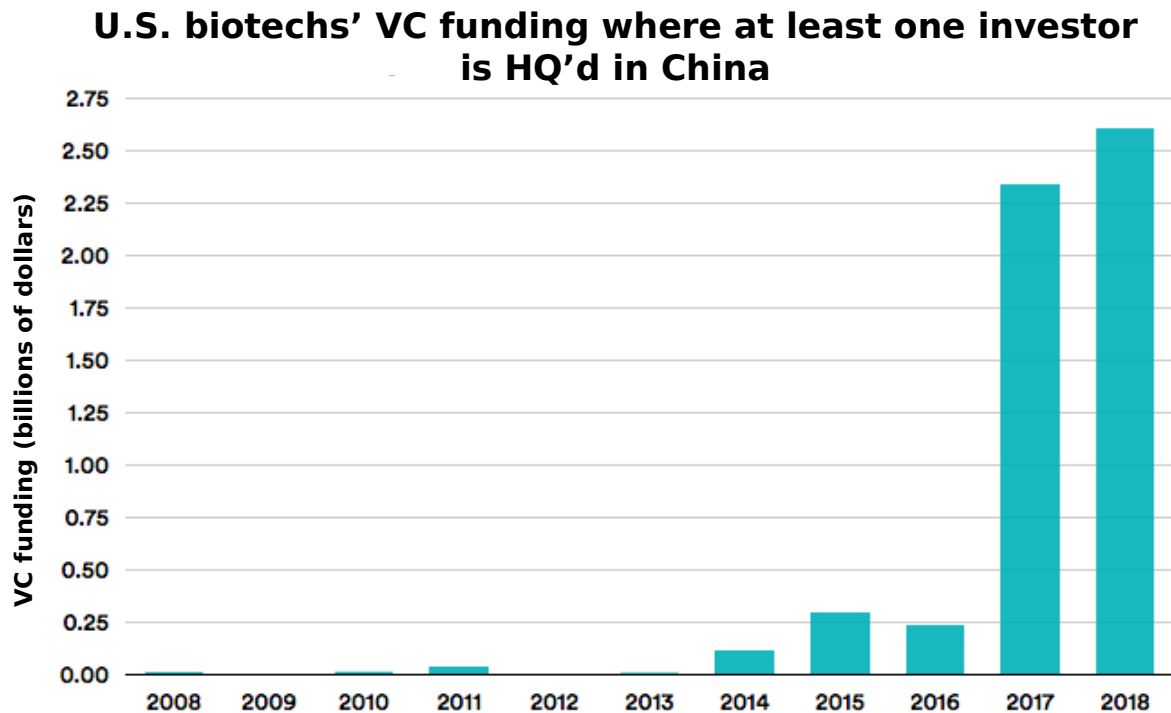
Source: Nasdaq

The year in venture capital



Source: Pitchbook

The year in Chinese investment



Source: Pitchbook

The year in deal making

What DID happen

✓ **Celgene** acquired CAR-T developer **Juno**

Therapeutics

✓ **Takeda** bought **Shire**

✓ **GlaxoSmithKline** acquired cancer biotech **Tesaro**

What DIDN'T happen

⊘ No one bought **Sage**
Therapeutics

⊘ No one bought
Neurocrine

⊘ **Biosciences**

Biogen didn't buy
anything

The year ahead

Clinical/regulatory catalysts to watch

→ Can Sage's SAGE-217 become a blockbuster in depression?

The NASH Phase 3 readouts are coming.

Who will prevail in hemophilia A: BioMarin or Spark Therapeutics?

Will Biogen tell us anything about its aducanumab in Alzheimer's?

Peanut allergy prevention heads to FDA — and a panel?

What's going to happen to IPOs?

→ 2017 started off so well, ended not so much

Is Moderna the Punxsutawney Phil of biotech IPOs?

What's going to happen to NGM Pharmaceuticals and Centrexion?

Remember what Porges says: Past success is predictive of future failure

Will M&A finally boom?

- Will any of biotech's usual suspects get bought?
- Will we see another round of megamergers?
- Will a Japanese pharma do something shocking?

Biotech's Four Horsemen are in flux

→ Celgene has lost \$70 billion in value over 13 months

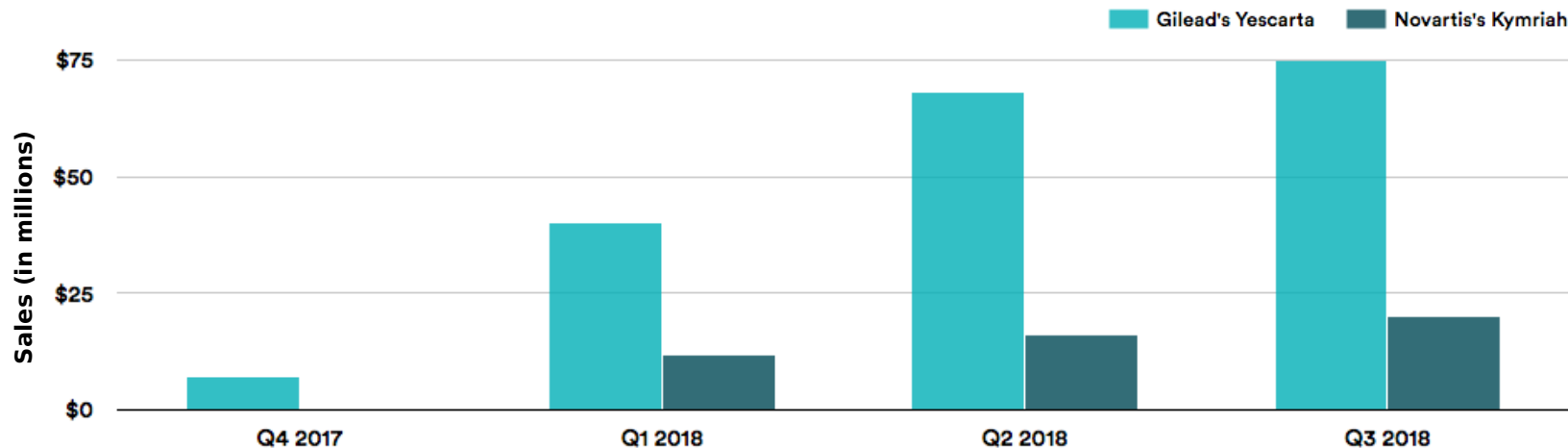
Gilead Sciences is integrating a new CEO

No one believes in Biogen's pipeline

Amgen needs a hit

Is cell/gene therapy a good business?

The early days of CAR-T



Source: Company Filings

What's going to happen with drug prices?

What might actually take place:

Passing the CREATES Act
Removing Medicaid rebate caps
Cracking down on pay for delay

What technically could take place:

- Pegging Medicare spending to overseas drug prices
- Allowing Medicare to negotiate directly
- Stripping patents from 'expensive' drugs

Keep an eye on China

→ Will the Hong Kong stock exchange inflate a biotech bubble?

Will we see a crackdown on Chinese investment into U.S. biotech?

Can promising results from China translate in U.S. patients?

What more will we learn about the CRISPR'd babies?